Code- 025

1. A pharmaceutical company planned to release a new sustain theophylline tablet. Based on ICH recommendation protocols for stability study, the company is on the verge to start the study.

   What is the most appropriate recommendation to this company?
   (A) Stability study commitment is good to apply
   (B) Six month real-time stability data is enough
   (C) Accelerated stability is enough for decision
   (D) Real-time stability study is not mandatory
   Answer: A

2. A Pharmaceutical factory manufactured a new drug substance in tablet form. The drug substance is prone to decomposition by moisture and light. After manufacturing, the pharmacist selected and sealed the product in appropriate primary container for marketing.

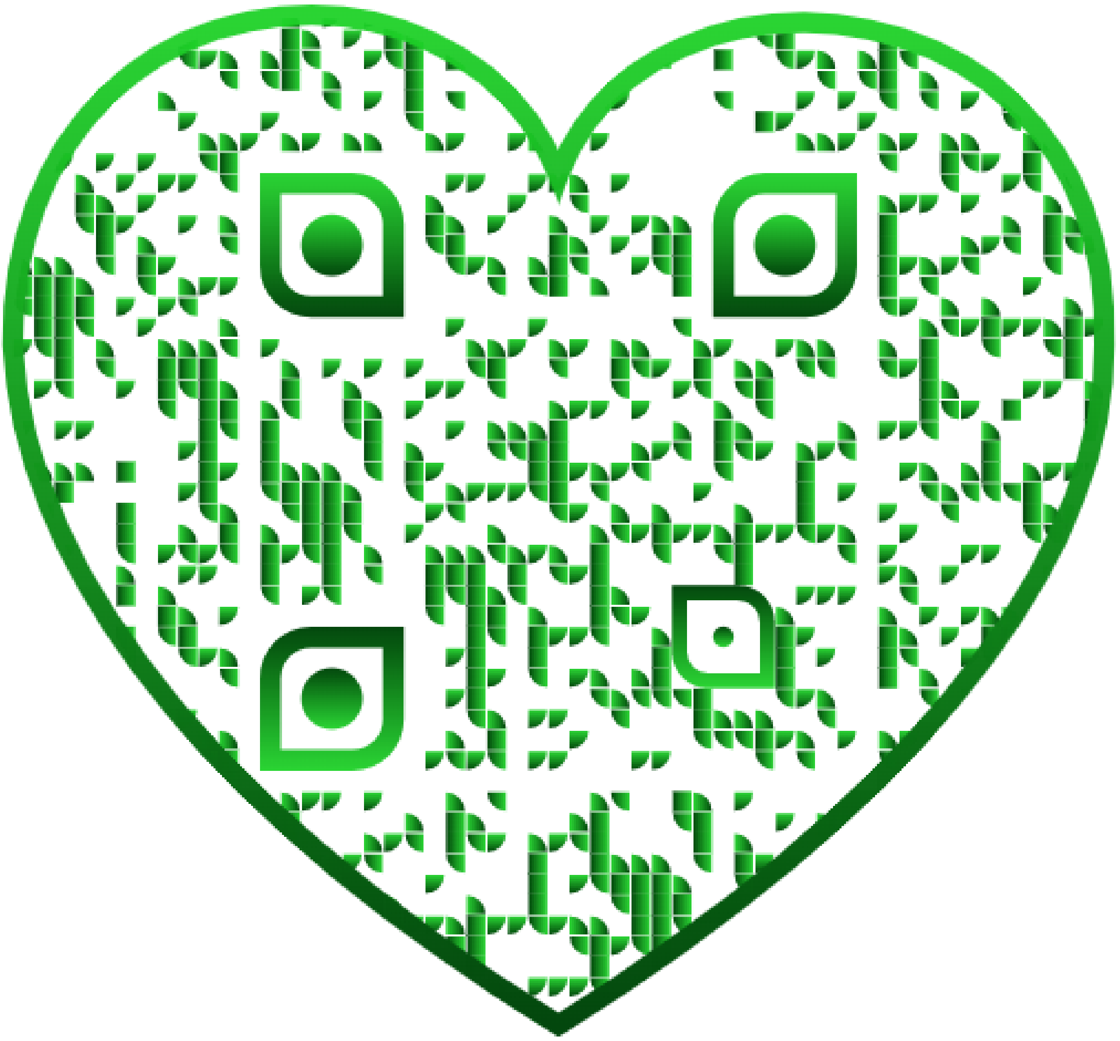
   What is the most appropriate primary packaging material that the pharmacist should use?
   (A) Blister with desiccant packet
   (B) Opaque glass bottle without desiccant packet
   (C) Tight plastic container without desiccant packet
   (D) Amber-colored container with desiccant packet
   Answer: D

3. In capsule production line, a production pharmacist is manufacturing capsule containing hydroscopic material. After the capsules are produced, the available packaging materials are gelatin capsule, capsule of vegetable origin, polyvinyl alcohol and hypromellose capsules.

   What is the most appropriate packaging material for this product?
   (A) Gelatin
   (B) Hypromellose
   (C) Polyvinyl alcohol
   (D) Vegetable origin
   Answer: B

4. A manufacturing pharmacist working in a pharmaceutical company manufactured mass of enteric coated granules of omeprazole enclosed in capsule. He has packed and labeled the product and is waiting for product release.

   What is the most likely requirement that the pharmacist is waiting for?
   (A) Preparation of store
   (B) Request from the market
   (C) In-process quality control test result
   (D) Approval from quality control unit
   Answer: D



Code - 025

1. A pharmaceutical company planned to release a new sustain theophylline tablet. Based on ICH recommendation protocols for stability study, the company is on the verge to start the study.

   What is the most appropriate recommendation to this company?
   (A) Stability study commitment is good to apply
   (B) Six month real-time stability data is enough
   (C) Accelerated stability is enough for decision
   (D) Real-time stability study is not mandatory
   Answer: A

2. A Pharmaceutical factory manufactured a new drug substance in tablet form. The drug substance is prone to decomposition by moisture and light. After manufacturing, the pharmacist selected and sealed the product in appropriate primary container for marketing.

   What is the most appropriate primary packaging material that the pharmacist should use?
   (A) Blister with desiccant packet
   (B) Opaque glass bottle without desiccant packet
   (C) Tight plastic container without desiccant packet
   (D) Amber-colored container with desiccant packet
   Answer: D

3. In capsule production line, a production pharmacist is manufacturing capsule containing hydroscopic material. After the capsules are produced, the available packaging materials are gelatin capsule, capsule of vegetable origin, polyvinyl alcohol and hypromellose capsules.

   What is the most appropriate packaging material for this product?
   (A) Gelatin
   (B) Hypromellose
   (C) Polyvinyl alcohol
   (D) Vegetable origin
   Answer: B

4. A manufacturing pharmacist working in a pharmaceutical company manufactured mass of enteric coated granules of omeprazole enclosed in capsule. He has packed and labeled the product and is waiting for product release.

   What is the most likely requirement that the pharmacist is waiting for?
   (A) Preparation of store
   (B) Request from the market
   (C) In-process quality control test result
   (D) Approval from quality control unit
   Answer: D

5. A prescription came from a dermatology department of a public hospital to a community pharmacy. The prescription orders the pharmacist to prepare suitable semisolid dosage form for a patient having highly secretive wound and inflammation at a hairy skin part of his leg.

   What is the most appropriate dosage form in this scenario?

   (A) Pastes
   (B) Creams
   (C) Ointment
   (D) Plaster

Answer: B

6. A pharmaceutical technologist wants to prepare an O/W type emulsion cream. While preparing the oil and water phases, she referred to Griffin's HLB numerical scale for selecting suitable emulsifying agent.

   What is the most suitable emulsifier for the cream?

   (A) 3 to 8
   (B) 7 to 9
   (C) 9 to 16
   (D) 16 to 20

   Answer: C

7. A pharmaceutical factory manufactured a batch of miconazole nitrate cream (2%). The product is waiting for specified in-process quality control test results.

   What should the manufacturing pharmacists do until the requested tests are complete?

   (A) Filling
   (B) Storing
   (C) Sterilizing
   (D) Packaging

   Answer: B

8. A pharmacist working in the research and development department of a given pharmaceutical industry planned to prepare water in oil emulsion.

   What should be done to meet the above plan?

   (A) Adding oil phase to water phase
   (B) Dissolving drug in the aqueous phase
   (C) Using high volume of water phase than oil phase
   (D) Dissolving sweeteners and flavorant in aqueous phase

   Answer: B

9. A pharmaceutical formulator should make effort to avoid certain rheological characteristics and in-place some rheological characteristics during designing & developing suspension formulation to improve its physical stability.

Which rheological characteristic is most likely introduced into suspension preparation to improve its physical stability?

(A) Pseudo plastic flow
(B) Dilatant flow
(C) Newtonian flow
(D) Plastic flow

Answer: D

10. After manufacturing, a pharmacist sterilized the final aqueous solution form of a drug product in sealed containers using high pressure of saturated hot steam.

What was the most appropriate sterilization technique that the pharmacist used?

(A) Gas
(B) Radiation
(C) Filtration
(D) Autoclaving

Answer: D

11. A pharmacist working in a pharmaceutical industry research and development unit designed acetylcholine chloride in powder form for intra-ocular injection. Finally, the powder is packed in multiple-dose container and dispensed with solvent for reconstitution.

What is the most appropriate container the pharmacist should use for this product?

(A) Vial
(B) Ampoule
(C) Canister
(D) Prefilled syringe

Answer: A

12. A manufacturing industry produces heat stable sterile drug products by applying compatible highly reproducible and generally readily validated lethal treatment method.

What method is most likely important for such industry?

(A) Aseptic processing
(B) Terminal sterilization
(C) Quality control testing
(D) Process simulation testing

Answer: B

13. A warehouse personnel is assigned to manage a proper storage of biological products to maintain shelf life of the products.

What is the most appropriate handling condition for these products?

(A) Storing the products with other products in the cold chain
(B) Placing expired products at one compartment of the cold chain
(C) Placing the products near to the cooling plate of the cold chain

(D) Allowing sufficient space in the cold chain for air to circulate

Answer: D

14. A nurse comes to a community pharmacy with a prescription for ipratropium bromide aerosol solution. The nurse requires the medication to give a home care for her patient. The pharmacist advised the nurse on the requirement of special storage condition.

    What is the most appropriate storage condition the pharmacist should recommend?

    (A) Keep it away from excess heat
    (B) Place at freezing temperature
    (C) Put in area with access to light
    (D) Store in area with excess humidity

    Answer: A

15. The GMP inspection team observed sliding door between ancillary area and production room of a manufacturing company. The team recorded this as a non-conformance works to be corrected.

    What is the most likely reason for the team to record the presence of sliding door as nonconformance?

    (A) To Prevent the pressure differential from pushing the door open
    (B) To prevent pressure differential from disturbance of air flow
    (C) To prevent the accumulation dust in sliding grooves.
    (D) To prevent any person to easily open.

Answer: A

16. An EFDA inspection team inspected a pharmaceutical manufacturer and recorded the following observations among others. The production premises had ceilings and walls that do not allow air passage, multiple sharp edges and corners, close fitting doors, and sealed light fittings. At the end of the inspection and after completing every required task, the team finally concluded that the premises were not fit for pharmaceutical production.

    What feature of the premises most likely contributed for the conclusion made by the team?

    (A) Sealed light fittings
    (B) Close fitting doors
    (C) Edges and corners
    (D) Ceiling and walls

    Answer: C

17. Alocal pharmaceutical company has got a manufacturing certificate of competency (license) from FDA. Due to shortage of hard currency, the company failed to start business. After one year of license issuing, inspection team from EFDA approached the company and came up with a decision of license suspension.

What is the most likely reason for the team to reach at such a decision?

(A) The company failed to start business within 6 months
(B) The company has no GMP certificate
(C) The license is not renewed
(D) Service fee not paid

Answer: A

18. A pharmaceutical manufacturer licensed by the EFDA is normally expected to be periodically inspected by a team from the authority.

What is the main purpose of such periodic inspection?

(A) To revoke the license of the manufacturer
(B) To issue manufacturing certificate of competence
(C) To find faults and malpractices in the establishment
(D) To issue GMP certificate in accordance with EFDA directives

Answer: D

19. In a pharmaceutical manufacturing industry, an annual internal quality audit was conducted and during the inspection, different non-conformity (NC) activities were detected. Most of those detected NC activities were found to be major NC. The audit team communicated these NC with the quality assurance manager of the company.

What should be the most appropriate next step of the quality assurance manager?

(A) Preventive action
(B) Corrective action
(C) Management review
(D) External audit

Answer: C

20. An analyst in quality control laboratory received a dissolution test request for tablet sample from production line. Before performing the analysis, the analyst identified the Bio pharmaceutics Classification (BSC) of the product as BSC-class I. Once identified, the BSC class of the drug, the analyst conducted the dissolution test and recorded the amount dissolves as Q at dissolution time of 30 minutes.

What is the minimum amount of the drug (Q) expected to be dissolved at 30 minutes in this case?

(A) $Q \geq 50\%$ of the labeled amount
(B) $Q \geq 60\%$ of the labeled amount
(C) $Q \geq 70\%$ of the labeled amount
(D) $Q \geq 80\%$ of the labeled amount

Answer: D

21. A variety of quality control tests are performed by FDA as part of the process of granting marketing authorization to pharmaceutical products entering the market. The FDA wants to ensure that each units of a pharmaceutical formulation contain reasonable amount of the active ingredient.

What type of quality control tests are the most appropriate in this case?
(A) Dissolution and physical strength tests
(B) Assays and dosage uniformity tests
(C) Disintegration and brittleness tests
(D) Elasticity and water content tests
Answer: B

22. The WHO has established certain minimum regulatory requirements for the registration of herbal traditional medicines in its guideline. Among these requirements are quality control parameters.

What quality control parameters are used as part of purity tests on these types of products?
(A) Description of the process of manufacture
(B) Quantification of the active ingredient
(C) Quantity and type of excipients
(D) Pesticide residues
Answer: D

23. A pharmaceutical promotion expert (medical representative) working in Ethiopia for the past five years in private pharmaceuticals importing company is being assessed whether he/she abides to EFDA promotion norms.

What type of acceptable behavior should the expert show in this scenario?
(A) Switching between jobs/employment without notifying the authority
(B) Presenting expensive promotional items as gifts to prescribers
(C) Ignoring any unethical practice pattern by the hiring company
(D) Offering free medical samples to health professionals
Answer: D

24. An Ethiopian pharmacy professional studied a Bachelor of degree in pharmacy in a foreign country. After receiving a professional license from the country's authority, the professional was not able to get a job in that country for about four months and wanted to return to Ethiopia to practice her profession.

What is the most appropriate initial step before starting a job in Ethiopia?
(A) Complete a one year internship program
(B) Get a new professional license in Ethiopia
(C) Get a temporary professional license from Ethiopia
(D) Produce evidence for equivalence of qualification
Answer: D

25. A female pharmacist working as a lecturer of pharmacology at one of the universities in Ethiopia decided to have her own community pharmacy after four years work experience.

Which is the first step to be applied by the pharmacist in this case?

(A) Leave the current job
(B) Rent a new license
(C) Apply for a license
(D) Hire other pharmacists

Answer: A

26. A pharmaceutical regulatory authority revoked a pharmacy technician's professional license. The authority claimed that the technician repeatedly hold narcotic and psychotropic medications in his/her own drug shop.

What is the most likely next action expected from the pharmacy technician?

(A) Remove the prohibited products
(B) Surrender the professional license
(C) Get an updated professional license
(D) Get a continued professional development (CPD)

Answer: B

27. A 30-year-old woman bought a body lotion that was being advertised by a promoter in an importing company. On the 5th day, the woman came back with a rash over all her body. The woman claims that the reason for the rash is the body lotion that the promoter influenced her to buy it.

What is the most appropriate initial legal consequence in this scenario?

(A) Find out the cause and effect relationship
(B) Make you legally liable for the tort
(C) Revoke your professional license
(D) Ban the product from the market

Answer: A

28. A pharmaceutical importer company wanted to advertise a test kit material on a television. While consulting the laws of advertisement, the company became aware that there is a restriction on the specific item to be advertised on television broadcast.

What are the most likely prohibited materials?

(A) Test kit for HIV-AIDS
(B) Test kit for pregnancy
(C) Test kit for hypertension
(D) Test kit for Covid-19 virus

Answer: A

29. A 35-year-old severe cancer patient is admitted to a specialized hospital. The patient's pain is serious and stressing despite taking several pain relieving medications. While the pharmacist was rounding in the ward with other physicians, the patient requested the team that the medications are not working well and assist him to die and get relief from his pain.

What is the legal implication of this scenario in Ethiopia?

(A) Assisted suicide is allowed when the patient is autonomous
(B) Assisted suicide is not allowed according to Ethiopia's law
(C) Assisted suicide is allowed for patients with life-threatening illnesses
(D) Assisted suicide is allowed when the patient and family members allow

Answer: B

30. A pharmacist is working in a hospital pharmacy of a certain research center and is classifying controlled substances based on their schedule on the controlled substance acts. In doing so, the pharmacist saw a product with a label of "for research purpose only".

What is the most likely substance the pharmacist observed in this case?

(A) Heroin
(B) Diazepam
(C) Codeine
(D) Morphine

Answer: A

31. A study is conducted to assess the effect of provision of Folic Acid to pregnant women on the birth weight of their babies.

What type of results is the researcher most interested in this scenario?

(A) Qualitative results
(B) Descriptive results
(C) Quantitative results
(D) Both qualitative and quantitative results

Answer: C

32. A male researcher wanted to state the objective of his research entitled 'antiepileptic medication adherence among epileptic patients in 'X' hospital'.

Which of the following is the correct way of stating his objective?

(A) To appreciate antiepileptic medication adherence
(B) To understand antiepileptic medication adherence
(C) To determine antiepileptic medication adherence
(D) To believe antiepileptic medication adherence

Answer: C

33. A researcher is highly interested to conduct a study entitled "Does the use of antipsychotic medications on patients with major mental disorders associated with the risk of obesity?" using a medical chart of patients with and without obesity.

Which design is most appropriate for this study?

29. A 35-year-old severe cancer patient is admitted to a specialized hospital. The patient's pain is serious and stressing despite taking several pain relieving medications. While the pharmacist was rounding in the ward with other physicians, the patient requested the team that the medications are not working well and assist him to die and get relief from his pain.

What is the legal implication of this scenario in Ethiopia?

(A) Assisted suicide is allowed when the patient is autonomous
(B) Assisted suicide is not allowed according to Ethiopia's law
(C) Assisted suicide is allowed for patients with life-threatening illnesses
(D) Assisted suicide is allowed when the patient and family members allow

Answer: B

30. A pharmacist is working in a hospital pharmacy of a certain research center and is classifying controlled substances based on their schedule on the controlled substance acts. In doing so, the pharmacist saw a product with a label of "for research purpose only".

What is the most likely substance the pharmacist observed in this case?

(A) Heroin
(B) Diazepam
(C) Codeine
(D) Morphine

Answer: A

31. A study is conducted to assess the effect of provision of Folic Acid to pregnant women on the birth weight of their babies.

What type of results is the researcher most interested in this scenario?

(A) Qualitative results
(B) Descriptive results
(C) Quantitative results
(D) Both qualitative and quantitative results

Answer: C

32. A male researcher wanted to state the objective of his research entitled 'antiepileptic medication adherence among epileptic patients in 'X' hospital'.

Which of the following is the correct way of stating his objective?

(A) To appreciate antiepileptic medication adherence
(B) To understand antiepileptic medication adherence
(C) To determine antiepileptic medication adherence
(D) To believe antiepileptic medication adherence

Answer: C

33. A researcher is highly interested to conduct a study entitled "Does the use of antipsychotic medications on patients with major mental disorders associated with the risk of obesity?" using a medical chart of patients with and without obesity.

Which design is most appropriate for this study?

(A) Retrospective cohort
(B) Prospective cohort
(C) Cross sectional
(D) Case-control

Answer: D

34. A researcher wanted to conduct a cross-sectional study on the prevalence of '*khat*' chewing and its associated factors among high school students in Ethiopia.

What is the most appropriate sampling method to be used in this case?

(A) Simple random sampling
(B) Stratified random sampling
(C) Sequential random sampling
(D) Systematic random sampling

Answer: B

35. A graduate student proposed to conduct a study on the prevalence of non-adherence to ART medications and its associated factors among 400 patients at an ART clinic of a certain hospital. The student prepared a self-administered interview guide after an extensive literature review.

What is the most appropriate next step in the above case?

(A) Conducting a pre-test on 20 patients in different hospitals
(B) Conducting the study on 440 patients in the hospital 'X'
(C) Changing the questionnaire into interview based type
(D) Entering the data on the suitable statistical software

Answer: A

36. In a given dataset, an extremely low or high observations ends up with "skewness" of a distribution curve. Hence, the mean value tends to shift towards those scores. When majority of scores are at the left end of the curve and few extreme large scores are scattered at the right end, a skewed distribution will occur.

What is the most likely type of skewed distribution in the above case?

(A) Unimodal skewed distribution
(B) Centrally skewed distribution
(C) Positively skewed distribution
(D) Symmetrical skewed distribution

Answer: C

37. A measure of variation or dispersion of given data sets determined to be the differenc between the highest and smallest observation, known as crudest measure of dispersion ar cannot be usually employed for comparing variability of two distributions expressed different units.

What is the most likely measure of variance the above paragraph refers to?

(A) Inter quartile range
(B) Standard deviation
(C) Range
(D) Quartile

Answer: C

38. In a study conducted on the association between drinking coffee and heart failure, the relative risk of the association was found to be 0.6 with a confidence interval of 0.4-0.8.

What is the most appropriate interpretation of this finding?

(A) A valid comparison is not possible with the given case
(B) The risk of heart failure is lower among coffee drinkers
(C) The risk of heart failure is higher among coffee drinkers
(D) There is no association between coffee drinking and heart failure

Answer: B

39. A field epidemiologist wanted to calculate deaths due to car accident in a certain city and started to consult a colleague on the appropriate epidemiologic outcome measure to be applied for his question.

What is the most appropriate measure to be used in this case?

(A) Disability adjusted life year
(B) Case fatality rate
(C) Proportionate mortality rate
(D) Years of potential life lost

Answer: B

40. An organization of a research paper refers to the structure and/or the sequence in which you present each type of information. The scientific report should have distinctive and clearly evident component parts. In one of the components, you will be expected to describe in detail how and with what means you accomplished your project.

Which component of a research paper most likely describes the above expectation?

(A) Abstract
(B) Introduction
(C) Statement of the problem
(D) Methods and Materials

Answer: D

41. A hospital pharmacy head is developing the 2021/2014 E.C. fiscal year's budget plan by categorizing into four groups; internal process, finance, human resources and capacity building.

What is the most likely category of the planning?

(A) Strategic planning

(B) Program planning
(C) Operational planning
(D) Project planning
Answer: C

42. A hospital management team has solved a prolonged loss of medicines through expiry and theft. The team concentrated on the causes to understand the wider range of the problem.

Which building block of a health system is addressed by the above team?
(A) Health work force
(B) Information system
(C) Services delivery system
(D) Leadership and governance
Answer: D

43. A pharmacy case team was established to develop monitoring and evaluation plan for reproductive health commodities supply in a certain region.

What is the most appropriate first step to be conducted by the team?
(A) Assessment
(B) Develop goal
(C) Set objectives
(D) Prioritize intervention
Answer: A

44. The national drug policy of the transitional government of Ethiopia was ratified in 1993. I has six objectives and thirteen strategies to accomplish those objectives. One of th strategies is "the government shall make all efforts to make sure that the public gets drug that are within its means".

What is the most likely strategy that the above paragraph refers to?
(A) Research and development
(B) Drug administration and control
(C) Drug information and promotion
(D) Drug pricing
Answer: D

45. A drug and therapeutic committee wants to compare drug 'X' which is manufacture Pfizer pharmaceutical company and, drug 'Y' which is manufactured by Ethio pharmaceutical company. Evidence shows that the two drugs have similar bioequivalen

What is the most appropriate pharmaco-economic analysis to use for a decision?
(A) Cost benefit analysis
(B) Cost effectiveness analysis
(C) Cost minimization analysis
(D) Cost utility analysis

Answer: C

46. A junior pharmacist was assigned to be head of Pharmacy Unit of a newly opened health center located in one of the '*Woredas*'. There was a previous health center that started providing health care service two years back. The pharmacist needed to estimate the total quantity and cost of commodities necessary for the new health center.

    What is the most appropriate data to take from the first health center for the quantification?

    (A) Consumption data
    (B) Service data
    (C) Morbidity data
    (D) Disposal data

    Answer: B

47. Pharmaceutical's procurement team must ensure that products meet regulatory and shipping/packaging requirements. Besides, it make sure the products are manufactured at facilities that meet GMP certification requirements.

    What is the most likely activity of the team in this scenario?

    (A) Monitor contract performance
    (B) Award contract
    (C) Supplier selection
    (D) Specification

    Answer: D

48. A head of a pharmacy case team of a primary hospital requested financial assistance from a local NGO and has the probability of obtaining the assistance from the NGO. As a matter of procedure, the NGO asked for quantification of the financial request before releasing the assistance.

    What is the most appropriate quantification method to use for the scenario?

    (A) Consumption
    (B) Morbidity
    (C) Proxy-consumption
    (D) Service level projection

    Answer: D

49. A hospital purchased 100,000 units IV infusion of Metronidazole for the 2014 fiscal year. However, 2.5% was lost due to damage during transportation, 2.5% was lost due to expiry and, 5% was lost due to theft. The remaining was consumed properly in the 2014 fiscal year. The consumption of the drug from 2014 is expected to be increased by 10% in the 2015 fiscal year (FY).

    What is the most appropriate quantity of the same drug to be ordered in 2015 FY?

    (A) 90,000
    (B) 99,000

(C) 108,000
(D) 108,900
Answer: D

50. A pharmacist is working in a drug supply management unit of a hospital, which was established ten years back. The hospital mostly purchases its health commodities from local suppliers, unless there is an emergency stock-out. The hospital has a complete record of the purchase and utilization of pharmaceuticals. There was also a relatively uninterrupted supply trend of pharmaceuticals. Thus, the pharmacist decided to quantify an amount of pharmaceuticals for the next budget year.

What is the most appropriate quantification method to be used in this scenario?
(A) Proxy-consumption
(B) Consumption
(C) Morbidity
(D) Service level projection
Answer: B

51. In a certain hospital, Ceftriaxone injection is usually delivered after two weeks of ordering. A total of 12,000 vials of Ceftriaxone were consumed in the last four months and there are 15,000 vials left in the stock.

What is average monthly consumption of Ceftriaxone in this hospital?
(A) 2000
(B) 3000
(C) 4000
(D) 5000
Answer: B

52. A hospital pharmaceutical consumption data indicated that 60% of pharmaceuticals were fast moving, 25% were moderate moving and, the remaining were slow moving. Fast moving items cost 75% of the budget and moderate moving items cost 15% of the budget.

What is the most appropriate purchasing model for the slow moving pharmaceuticals?
(A) Perpetual
(B) Annual
(C) Scheduled
(D) Twice a year
Answer: B

53. A hospital drug and therapeutics committee wants to prepare an essential medicines list and started to identify the relevant factors to consider in selecting the medicines.

Which is the most relevant factor to be considered in this case?

A) Availability in the international market
B) The national disease pattern
C) Unit prices of the medicines
D) The local disease pattern
Answer: D

54. The Ethiopian Pharmaceutical supply Agency (EPSA) stocked out of Insulin 1500 IU. Because of the long lead time to purchase from foreign suppliers, the agency decided to procure 50000 Insulin Vials to be distributed to health facilities to cover the demand until the ordered drug is shipped. During the procurement process the agency bid and bargains three local pharmaceutical companies and one of the companies was selected to supply the medication.

What method of Procurement did EPSA use to acquire the medication?
(A) Direct procurement method
(B) Competitive negotiation method
(C) Open tender procurement method
(D) Closed tender procurement method
Answer: B

55. A pharmacy store manager working in a public health facility follows the Integrated Pharmaceuticals Logistics System of Ethiopia (IPLS)'s recommendation for managing the inventory. The pharmacist is triggered for placing an order of some essential pharmaceuticals to the maximum stock level.

What is the most likely stock level of the pharmaceuticals at present?
(A) Adjustment Stock level
(B) Safety stock level
(C) Lead-time stock level
(D) Minimum Stock level
Answer: D

56. A hospital store manager received the purchased pharmaceuticals and transcribed information from a purchase invoice into a receiving voucher. The transcribed information include; date, name of the supplier, invoice number, code of the product, description of th product, batch number, unit of measurement, quantity received, unit and total cost, expir date and the name of individual that delivered the product.

What is the most likely receiving voucher used by the store manager?
(A) Model 19
(B) Model 20
(C) Model 22
(D) Model 06
Answer: A

57. A store manager is revising data that contain information about the quantity of goods moved from one storage facility to another (either between levels or within the health facility).

What is the most likely type of data the store manager is revising?

(A) Pipeline data

(B) Fleet management data

(C) Issue data

(D) Consumption data

Answer: C

58. A public health facility is usually stocked out of essential pharmaceuticals. Delay in deliveries and increased consumption and losses are among the reasons identified through assessment. Head of the pharmacy department decided to determine and hold stocks of pharmaceuticals to manage the stock out risk.

What is the most likely type of stock to be held by pharmacy department?

(A) Lead time stock

(B) Buffer stock

(C) Review period stock

(D) Minimum stock

Answer: B

59. A national formulary and therapeutic board approved the length of time from manufacturing pharmaceuticals to the final date that the pharmaceuticals can be safely used. The board accepted what manufactures specified as a reference.

What is the most likely nature of pharmaceuticals the above description refers to?

(A) Shelf life

(B) Expiration date

(C) Storage duration

(D) Pipeline duration

Answer: A

60. A pharmacist has purchased Oxytocin, Diazepam, Amoxicillin, and Anti-D from Ethiopian pharmaceutical supply agency.

What is the most appropriate shipment condition for the purchased drugs?

(A) Cold box for Diazepam and Ant-D

(B) Cold box for Oxytocin and Anti-D

(C) Cold box for Diazepam and Oxytocin

(D) Cold box for Amoxicillin and Diazepam

Answer: B

61. A pharmacist is given a responsibility for checking and approving shipments dispatched to health facilities. The pharmacist checked and found some cartons with voids because some of the products were taken out to ensure delivery of the right quantity.

What is the most appropriate action the pharmacist should take?

(A) Fill the voids with packaging material
(B) Seal the carton to reduce theft by movers
(C) Transport the products without the carton
(D) Transfer the product to a carton for another medicine

Answer: A

62. A client with a history of diazepam use for insomnia is experiencing craving symptoms, and consulted a community pharmacist for an advice on the possible management options.

What is the most appropriate initial action in this case?

(A) Keeping a good sleep hygiene
(B) Maintaining the same medication
(C) Change to amitriptyline every other day
(D) Change to a long acting benzodiazepines

Answer: A

63. A clinical trial was being conducted to test the effectiveness of a new anti-dandruff extract from *Aloe Vera*. At clinical stage, participants were randomly assigned to the experimental and control group.

What should the pharmacist recommend regarding the medication administered for the control group?

(A) Use pre-existing anti-dandruffs
(B) Administer purified water
(C) Use the new drug at low dose
(D) Leave with no medication

Answer: A

64. Ethical issues related to health can be macro or micro depending on the type of decision maker's involvement to address the ethical dilemma encountered during a service delivery. Macro ethical issues/dilemmas require involvement of legislative body of the country. On the other hand micro ethical issues could be handled at an individual/practitioner level.

Which ethical issue/dilemma is most likely to be handled by the healthcare practitioner?

(A) Abortion
(B) Euthanasia
(C) Confidentiality
(D) Artificial insemination

Answer: C

65. A patient from a psychiatry department is presented to OPD pharmacy requesting for an OTC anti-pain.

What is the most appropriate measure that the pharmacist should take?

(A) Dispense with ordinary prescription
(B) Request special prescription
(C) Dispense without a prescription
(D) Reject dispensing request

Answer: D

66. A private pharmacy owner applied to a drug regulatory authority to open pharmacy on the fourth floor of an apartment. The owner has fulfilled the rest requirements. However, the request could not get acceptance.

What is the most likely violated ethical principle which resulted in rejection?

(A) Justice
(B) Non-maleficence
(C) Autonomy
(D) Beneficence

Answer: A

Code - 025

1. A 25-year-old man is admitted to a medical ward with symptoms of irritability and lethargy. The physician working in the ward did a lumbar puncture, and found CSF glucose 20 mg/dL, Protein 200 mg/dL, Opening pressure 250 mm CSF, White blood cell count 1600 cells/μL with 92% Polymorphonuclear Leukocytes and the CSF red blood cell (RBC) count 50/μL. Lastly, the clinical team set the diagnosis to be Meningitis.

   What is the most likely cause of the meningitis in this patient?
   (A) Viral
   (B) Fungal
   (C) Bacterial
   (D) Tuberculosis

Answer: C

2. A 25-year-old woman with no previous history of UTI, complains of burning on urination. frequent but small amount of urine, and bladder pain. She has no fever or costo-vertebral angle tenderness. A clean-catch midstream urine sample shows gram-negative rods on Gram stain. Based on these findings, she is presumed to have a lower UTI.

   What is the most likely bacterial etiology in this patient?
   (A) Proteus mirabilis
   (B) Pseudomonas aeruginosa
   (C) Escherichia coli
   (D) Klebsiella pneumonia

Answer: C

3. A 32-year-old man with HIV infection comes to an ART clinic. The physician in charge was considering to prescribe Tenofovir based fixed drug combination but doubted whether prior investigations need to be done ahead or not and consulted the pharmacist on duty.

   What laboratory test does the pharmacist recommend in this case?
   (A) Electrocardiographic test
   (B) Complete blood count
   (C) Liver function test
   (D) Renal function test
   Answer: D

4. A 27-year-old man was brought to an emergency department for complaints of nuchal rigidity, fever and altered mental status of half a day duration. The physician in charge well investigated and set his diagnosis as acute bacterial meningitis and planned to initiate adjunctive dexamethasone therapy with antibiotics. However, the physician hesitated with the appropriate timing of Dexamethasone therapy; hence, requested the clinical pharmacist on duty to support with this regard?

Code - 025

1. A 25-year-old man is admitted to a medical ward with symptoms of irritability and lethargy. The physician working in the ward did a lumbar puncture, and found CSF glucose 20 mg/dL, Protein 200 mg/dL, Opening pressure 250 mm CSF, White blood cell count 1600 cells/μL with 92% Polymorphonuclear Leukocytes and the CSF red blood cell (RBC) count 50/μL. Lastly, the clinical team set the diagnosis to be Meningitis.

   What is the most likely cause of the meningitis in this patient?
   (A) Viral
   (B) Fungal
   (C) Bacterial
   (D) Tuberculosis

Answer: C

2. A 25-year-old woman with no previous history of UTI, complains of burning on urination, frequent but small amount of urine, and bladder pain. She has no fever or costo-vertebral angle tenderness. A clean-catch midstream urine sample shows gram-negative rods on Gram stain. Based on these findings, she is presumed to have a lower UTI.

   What is the most likely bacterial etiology in this patient?
   (A) Proteus mirabilis
   (B) Pseudomonas aeruginosa
   (C) Escherichia coli
   (D) Klebsiella pneumonia

Answer: C

3. A 32-year-old man with HIV infection comes to an ART clinic. The physician in charge was considering to prescribe Tenofovir based fixed drug combination but doubted whether prior investigations need to be done ahead or not and consulted the pharmacist on duty.

   What laboratory test does the pharmacist recommend in this case?
   (A) Electrocardiographic test
   (B) Complete blood count
   (C) Liver function test
   (D) Renal function test
   Answer: D

4. A 27-year-old man was brought to an emergency department for complaints of nuchal rigidity, fever and altered mental status of half a day duration. The physician in charge well investigated and set his diagnosis as acute bacterial meningitis and planned to initiate adjunctive dexamethasone therapy with antibiotics. However, the physician hesitated with the appropriate timing of Dexamethasone therapy; hence, requested the clinical pharmacist on duty to support with this regard?

What is the most recommended Dexamethasone initiation time for this patient?

(A) Initiate 20 minutes after the first dose of antimicrobials for 2 days
(B) Initiate 20 minutes after the first dose of antimicrobials for 2 weeks
(C) Initiate concomitant with the first dose of antimicrobials for 2 weeks
(D) Initiate 20 minutes prior to the first dose of antimicrobials for 2 days

Answer: D

5. A 22-year-old known type II diabetic patient came to an OPD with complaints of productive cough, night sweats and weight loss of two weeks duration. Upon investigation, it was evidenced that the sputum was positive for AFB and the clinical team concluded the diagnosis as pulmonary tuberculosis; hence, put the patient on (Isoniazid 300mg daily, Rifampicin 600mg daily, Pyrazinamide 1600mg daily and Ethambutol 1100mg daily) for 2 months. Otherwise, the plasma glucose was well controlled with minimal complaints against the respective oral hypoglycemic agents he was on.

   What is the most likely treatment problem occurred in this patient?

   (A) Dosage too low
   (B) Dosage too high
   (C) Drug non-adherence
   (D) Needs additional drug therapy

   Answer: D

6. A 40-year-old man wants to go to a malaria endemic area for two weeks. The most common plasmodium species in the area is *P. falciparum*. He visiteda community pharmacy, and requested the pharmacist for anti-malarial prophylaxis before his travel.

   What is the most appropriate drug for this patient?

   (A) Doxycycline 100mg PO daily 2 days prior to travel, continued for 2 weeks after his return
   (B) Mefloquine 250 mg PO weekly 2 weeks prior to travel, continued for 1 week after his return
   (C) Primaquine 15mg PO daily 2 days prior to travel, continued for 2 weeks after his return
   (D) Mefloquine 250 mg PO weekly 2 weeks prior to travel, continued for 4 weeks after his return

   Answer: D

7. A 34-year-old man, who has perforated peptic ulcer, comes with severe abdominal pain and nausea. His vital signs were: Temperature is 39.3°C and PR is 105 bpm. On investigation, he has a WBC count of $16.5\text{x}10^3/\mu L$ and blood urea nitrogen of 34 mg/dL; and hence, diagnosed with generalized peritonitis secondary to gastric perforation. The intra-abdominal infection was managed by prompt drainage, fluid resuscitation and appropriate antimicrobial therapy.

   What is the most effective monitoring parameter for this condition?

(A) Urine output
(B) Mental Status
(C) Patient weight
(D) Blood Pressure
Answer: A

8. A 30-year-old woman was diagnosed with mania and started a lithium therapy. One month later, the patient symptoms were improved but she started to experience some new symptoms. The physician suspects this could be due to drug side effect. so ordered laboratory tests.

   What laboratory changes are expected in this patient?
   (A) Increased in thyroid hormones
   (B) Decreased in kidney function
   (C) Decreased in white blood cells
   (D) Increased in liver function tests
   Answer: B

9. A 40-year-old man was prescribed with Haloperidol to treat schizophrenia. Later on, the physician changed the treatment to Risperidone since haloperidol therapy was unable to produce adequate clinical response. However, Risperidone trial also failed to produce an adequate clinical response.

   What is the next most effective drug therapy for this patient?
   (A) Clozapine
   (B) Olanzapine
   (C) Thioridazine
   (D) Fluphenazine
   Answer: A

10. A 22-year-old man on Fluoxetine 40mg tablets for the management of major depressive disorder for 8 weeks decided to discontinue medication. He reports that "I feel like I have my old life back". His energy has improved and he is doing well in his studies.

    What is the next most appropriate step in the treatment of this patient?
    (A) Reduce Fluoxetine dose to 10mg
    (B) Continue Fluoxetine 40mg
    (C) Change to Sertraline 50mg
    (D) Add Imipramine 25mg
Answer: B

11. A 21-year-old female patient with chief complaints of depressed mood, loss of pleasure, and hypersomnia was admitted to inpatient psychiatry clinic. She also has history of a profound lethargy, hyperphagia, pathological sensitivity to interpersonal rejection for the last two

weeks. After full psychiatric assessment, the patient was diagnosed with atypical type of Major Depressive Disorder.

What is the most appropriate drug to be used in the management of this case?
(A) Phenelzine
(B) Paroxetine
(C) Venlafaxine
(D) Imipramine
Answer: A

12. A 25-year-old man came to a psychiatry clinic with complaints of poor concentration, recurrent thoughts of suicide, diminished interest, loss of energy, changes in sleep pattern and feelings of worthlessness of three weeks duration. The physician diagnosed the case as major depressive disorder but consulted the pharmacist in charge before initiating the drug therapy.

What is the most likely information the pharmacist should quest before his recommendation?
(A) Depressed mood
(B) Previous drug use
(C) Change in appetite
(D) Psychomotor agitation
Answer: B

13. A 50-year-old man is admitted to a hospital with an acute onset of severe mid-thoracic spinal pain. He is found to be anemic and investigations show that he has multiple myeloma with widespread bony lesions, including fresh spinal fractures.

What is the most appropriate pain management for this patient?
(A) Ibuprofen
(B) Tramadol
(C) Acetaminophen
(D) Morphine
Answer: D

14. A 38-year-old known epileptic woman is taking phenytoin 400 mg/day and Valproate 2,000 mg/day. She also uses high dose of oral contraceptives to prevent pregnancy. In addition, she is taking Methyldopa 250mg PO BID for her long standing hypertension. Today she came to the ambulatory clinic with complaints of painful lower limb swelling which later has been diagnosed as deep venous thrombosis.

What is the most likely medication responsible for her complication?
(A) Phenytoin
(B) Valproate
(C) Methyldopa
(D) Oral contraceptive

Answer: D

15. A 48-year-old patient with epilepsy came to neurology clinic for follow up. The patient seizure was well controlled for the last three years with phenytoin 100 mg BID. The neurologic exam and electroencephalogram (EEG) results are normal. The attending physician planned to stop the medication as the patient is seizure free for the last three years. He asked the clinical pharmacist working in the neurology clinic to suggest on the antiepileptic medicines discontinuation plan for this patient.

    What could be the appropriate suggestion expected from the pharmacist in this case?

    (A) Do not stop the medication since it should be taken for life time.
    (B) Do not stop the medication since phenytoin has no adverse effects.
    (C) Stop the medication by tapering over a period of three months.
    (D) Stop the medication at once since the patient is currently seizure free.
    Answer: C

16. A 59-year-old man was presented to a hospital with complaints of muscle weakness, fatigue and confusion. He has a two year history of hypertension treated with thiazide diuretic. He regularly drinks alcohol. His blood pressure is 107/70 mmHg. On investigation, laboratory results are Potassium: 3.2 mEq/L; RBC count: 4.2×10^{12}/L; Hgb: 13.6 g/dL; fasting Glucose, 112 mg/dL.*(normal value: HGB=13.3–16.2 g/dL, Potassium=3.5–5.0 meq/L, RBC: 4.30–5.60* $\times 10^{12}$*/L, Fasting glucose: 75–100 mg/dL)*

    What is the most likely cause for the patient's condition?

    (A) Iron-deficiency Anemia
    (B) Postural hypotension
    (C) Alcohol intoxication
    (D) Adverse drug effect
    Answer: D

17. A 48-year-old man with Stage C heart failure has been treated with Captopril 50mg PO TID, Bisoprolol 10mg PO daily, and Digoxin 0.25mg PO daily. Past history was remarkable for calcium Nephrolithiasis and currently treated with Hydrochlorothiazide 25mg PO daily. He visits the chronic care clinic with complaints of dizziness, light-headedness and blurred vision. Other findings are unremarkable.

    What is the most likely drug therapy problem this patient faces?

    (A) Dosage too high
    (B) Dosage too low
    (C) Adverse drug reaction
    (D) Needs additional drug therapy

Answer: C

18. A 55-year-old woman comes to a physician with complaints of troubling headache and constipation. She was recently diagnosed with stable angina and being on treatment for two weeks.

What is the most likely drug that the woman was taking?

(A) Nifedipine
(B) Niroglycerin
(C) Verapamil
(D) Propranolol

Answer: C

19. A 50-year-old man was recently diagnosed with hypertension. He has a two year history of chronic kidney disease. Appropriate drug therapy is instituted.

What is the high-priority blood pressure treatment goal in this patient?

(A) < 150/90 mm Hg
(B) <140/90 mm Hg
(C) <130/80 mm Hg
(D) <120/80 mm Hg

Answer: B

20. A 54-year-old woman, who was recently diagnosed with Stage C heart failure and started low dose Asprin, Captopril, Metoprolol and Digoxin; was found to have a third-degree atrioventricular block. Up on review of the past medical records, the ECG report dictates normal conduction. The drug therapy has adequately managed the patient's symptoms; however, the physician fears that the new condition was due to the medications being used.

What is the most likely intervention to be applied for this patient?

(A) Discontinue Metoprolol
(B) Discontinue Captopril
(C) Discontinue Digoxin
(D) Discontinue Asprin

Answer: C

21. A 53-year-old woman has recently been diagnosed with Stage 1 hypertension and Stage B heart failure. The clinical team decided to initiate two drug therapies with the advisable life change modification.

What is the most appropriate drug therapy for this patient?

(A) Hydrochlorothiazide and Nifedipine
(B) Furosemide and Nifedipine
(C) Captopril and Metoprolol
(D) Furosemide and Enalapril

Answer: C

18. A 55-year-old woman comes to a physician with complaints of troubling headache and constipation. She was recently diagnosed with stable angina and being on treatment for two weeks.

What is the most likely drug that the woman was taking?

(A) Nifedipine
(B) Niroglycerin
(C) Verapamil
(D) Propranolol

Answer: C

19. A 50-year-old man was recently diagnosed with hypertension. He has a two year history of chronic kidney disease. Appropriate drug therapy is instituted.

What is the high-priority blood pressure treatment goal in this patient?

(A) < 150/90 mm Hg
(B) <140/90 mm Hg
(C) <130/80 mm Hg
(D) <120/80 mm Hg

Answer: B

20. A 54-year-old woman, who was recently diagnosed with Stage C heart failure and started low dose Asprin, Captopril, Metoprolol and Digoxin; was found to have a third-degree atrioventricular block. Up on review of the past medical records, the ECG report dictates normal conduction. The drug therapy has adequately managed the patient's symptoms; however, the physician fears that the new condition was due to the medications being used.

What is the most likely intervention to be applied for this patient?

(A) Discontinue Metoprolol
(B) Discontinue Captopril
(C) Discontinue Digoxin
(D) Discontinue Asprin

Answer: C

21. A 53-year-old woman has recently been diagnosed with Stage 1 hypertension and Stage B heart failure. The clinical team decided to initiate two drug therapies with the advisable life change modification.

What is the most appropriate drug therapy for this patient?

(A) Hydrochlorothiazide and Nifedipine
(B) Furosemide and Nifedipine
(C) Captopril and Metoprolol
(D) Furosemide and Enalapril

Answer: C

22. A 54-year-old woman with a history of chronic kidney disease has been diagnosed with hypertension, and started appropriate antihypertensive drug therapy containing Enalapril, Hydrochlorothiazide and Nifedipine. After few days of treatment, she came to the clinic with complaints of persistent cough and facial swelling. The blood pressure control was good and other findings were unremarkable.

    What is the most appropriate recommendation for this patient?

    (A) Replace Enalapril with Losartan
    (B) Replace Nifedipine with Amlodipine
    (C) Decease the doses of all the medications
    (D) Replace Hydrochlorothiazide with Spironolactone

    Answer: C

23. A 64-year-old man came with a poorly controlled blood pressure after two months of treatment with Hydrochlorothiazide and Losartan. The physician decided to add a third drug that works principally by reducing central sympathetic outflow.

    What is the most likely medication prescribed by the physician?

    (A) Methyldopa
    (B) Captopril
    (C) Enalapril
    (D) Atenolol

    Answer: A

24. A 62-year-old male patient with hypertension and chronic kidney disease was prescribed with hydrochlorothiazide 50 mg P.O daily, Amilodipine 10 mg P.O daily and Enalapril 10mg P.O BID for one month. His physical examination shows blood pressure of 130/85mmHg and has grade two pitting edema in his extremities despite the current treatment.

    What is the next most appropriate step in the management of this patient?

    (A) Increasing the dose of Enalapril
    (B) Replacing Amilodipine by Nifedipine
    (C) Increasing the dose of Hydrochlorothiazide
    (D) Replacing Hydrochlorothiazide by Furosemide

    Answer: D

25. A 52-year-old female patient with diabetes, hypertension and chronic kidney disease (CKD) came to a clinic for her regular follow up. Her home medications are Glibenclamide 5mg P.O BID and Metoprolol 25 mg P.O Daily. The attending physician approached a clinical pharmacist to recommend another drug which will help for the reduction CKD progression.

    What is the most appropriate drug to be added on her current treatment regimen?

    (A) Verapamil

(B) Hydrochlorothiazide
(C) Hydralazine
(D) Enalapril
Answer: D

26. A 55-year-old man with a history of hypertension for 10 years and intermittent seasonal allergic rhinitis since childhood came with complaints of persistent nasal itching, sneezing, clear rhinorrhea, and stuffiness with added ocular itching. His hypertension has been well controlled with Hydrochlorothiazide 25 mg every morning and Amlodipine 10 mg every day. He denies any other medical problems and his blood pressure is 120/80 mm Hg. He has no history of adverse drug reactions or drug allergies. He does not smoke and drink alcohol. He is a public bus driver.

What is the most likely recommendation to successfully control his seasonal symptoms?
(A) Diphenhydramine
(B) Clemastine
(C) Cetirizine
(D) Albuterol
Answer: C

27. A 25-year-old man with asthma was brought to a hospital with shortness of breath, chest tightness, wheezing and coughing at night. The physician ordered an investigation and the results showed a moderate persistent asthma.

Which is the most likely laboratory result consistent with the patient's condition?
(A) FEV_1 is 30% of predicted
(B) FEV_1 is 50% of predicted
(C) FEV_1 is 75% of predicted
(D) FEV_1 is 85% of predicted
Answer: C

28. A 36-year-old woman was presented to an OPD with complaints of heat intolerance and weight loss of two months duration. Upon physical examination, the physician noticed a nodular thyroid gland with due tenderness. On laboratory investigation, the thyroid hormones were found to be raised with decrease in TSH and the diagnosis of Hyperthyroidism was set.

What is the most likely examination technique that determined the physical findings?
(A) Thyroid Auscultation
(B) Thyroid Percussion
(C) Thyroid Inspection
(D) Thyroid Palpation
Answer: D

29. A 47-year-old woman with Type II diabetes, who has been taking daily dose of Glyburide, came with increased thirst and excessive urination since one week after being put on some antihypertensive medication. Her plasma glucose was well controlled with the therapy until she had taken the antihypertensive medication. Her fasting blood glucose level currently is 150 mg/dL. (*Normal value: Fasting glucose: 75–100 mg/dL*)

    What is the most likely antihypertensive drug she has been taking?
    (A) Captopril
    (B) Nifedipine
    (C) Methyldopa
    (D) Hydrochlorothiazide
    Answer: D

30. A 42-year-old man with a chief complaint of severe lower abdominal pain after a falling down accident is admitted to an emergency department. He is a known asthma patient for the past 10 years that is controlled with β2-agonists and inhaled Beclometasone. He underwent an emergency laparotomy and a perforated appendix and associated peritonitis was revealed. Post-operatively, he became hypotensive and oligouric which does not respond well to IV dobutamine and dopamine despite extending the spectrum of his antibiotics. He remains hypotensive on presser agents and becomes hypoglycemic. His blood chemistry shows Na^{++} 125 mEq/L, K^{+} 5.6 mEq/L and urea 150 mg/dL. The physician diagnosed him as adrenal insufficiency with confirmatory ACTH and cortisol results.

    What is the priority drug therapy of this patient within 24 hours?
    (A) IV Hydrocortisone with glucose
    (B) IV Hydrocortisone with IV KCl
    (C) IV Hydrocortisone with 0.9% NaCl
    (D) IV Hydrocortisone with antibiotics
    Answer: A

31. A 28-year-old pregnant woman comes with complaints of heat intolerance, weight loss, weakness, palpitations, oligomenorrhea, and anxiety. A diffuse non-tender goiter is found and the thyroid function tests revealed low TSH and high T4 levels. She is diagnosed with Grave's disease.

    What is the most appropriate treatment of choice for this patient?
    (A) Thyroxine
    (B) Propranolol
    (C) Propylthiouracil
    (D) Radioactive Iodine

Answer: C

32. A 40-year-old man who works as an air traffic controller at an Airport, comes to a hospital with complains of burning stomach pain accompanied by indigestion and bloating of two-week duration. The pain initially occurred several times a day, usually between meals, and

sometimes awakened him at night, but it has increased in frequency during the past week. Initially, the pain was temporarily reduced by food or antacids. Last week, he tried an OTC famotidine that "lasted longer" but did not provide adequate symptom relief. He used to smoke one pack of cigarettes daily for the past 20 years, has an occasional glass of red wine, and usually drinks 4 to 6 cups of caffeinated coffee throughout the day.

What is the most likely missed patient history in this case?

(A) History of present illness

(B) Past medical history

(C) Medication history

(D) Social history

Answer: B

33. A 65-year-old male patient has started treatment with parenteral iron therapy because he cannot tolerate an oral therapy for iron deficiency anemia. After three days, the patient developed anaphylaxis reaction.

What is the most likely responsible drug for occurrence of this reaction?

(A) Iron dextran

(B) Sodium ferric gluconate

(C) Iron sucrose

(D) Ferumoxytol

Answer: A

34. A 30-year-old man, who was on morphine for his moderate back pain, experienced severe diarrhea with abdominal pain, bleeding, fever, sepsis, electrolyte disturbances, and dehydration. The pain was episodic at first, exacerbated by meals, and somewhat relieved by defecation. He reports loss of appetite and a significant weight loss. Colonoscopy evaluations and pertinent laboratory investigations reveal a toxic megacolon secondary to *Clostridium difficile* infection. Finally, IV fluids, Metronidazole and Vancomycin were prescribed.

What is the LESS likely important drug therapy in this patient?

(A) Intravenous fluids

(B) Metronidazole

(C) Vancomycin

(D) Morphine

Answer: D

35. A 42-year-old man complaint of mild and intermittent heartburn. He reports a burning sensation in his upper chest and some regurgitation of stomach contents to his mouth.

What is the best treatment option for this patient?

(A) Eating smaller meal

(B) Lansoprazole

(C) Anti-reflux surgery

(D) Endoscopic therapies

Answer: B

36. A 34-year- old man came to a hospital with complaints of bleeding from mouth, headache, confusion and numbness. The physician sent a laboratory test to confirm suspected Immune thrombocytopenic purpura (ITP).

What laboratory test is consistent with this patient presentation?

(A) Normal Prothrombin time

(B) Decreased reticulocyte count

(C) Increased serum haptoglobin

(D) Decreased lactate dehydrogenase

Answer: A

37. A 46-year-old hemophilic patient is presented to the emergency department with complaints of joint pain, swelling, erythema, and mouth bleeding. After the patient is managed, the laboratory test revealed hyponatremia.

What could be the most likely cause for this side effect?

(A) Desmopressin

(B) Tranexamic acid

(C) Aminocaproic acid

(D) Factor VIII replacement

Answer: A

38. A 54-year-old woman has been presented with the diagnosis of hemophilia and taken clotting factor replacement.

What is the appropriate monitoring parameter for this patient?

(A) Musculoskeletal status

(B) Renal function test

(C) Cardiac biomarker

(D) Thyroid function test

Answer: A

39. A 50-year-old woman comes to a hospital and reports pain and stiffness in her right knee. The pain is usually worse in the morning and lasts for about 15 to 20 minutes and then subsides throughout the day. She reports that she is having a difficulty of taking care of herself. Her medical history is significant for hypertension, dyslipidemia, and peptic ulcer disease. She denies smoking and alcohol consumption. Finally, the diagnosis was set to be moderate osteoarthritis considering her history, physical examination and imaging reports. She was taking Hydrochlorothiazide, Atorvastatin, and Omeprazole with good adherence.

What is the most likely drug therapy problem occurred in this patient?

(A) Needs additional drug therapy
(B) Unnecessary drug therapy
(C) Ineffective drug therapy
(D) Adverse drug reaction

Answer: A

40. A 37-year-old male patient with HIV/AIDS and on HAART was admitted to a hospital with generalized painful bullous lesion with accompanying high fever, headache, and respiratory symptoms that deteriorated rapidly. Lesions show rapid confluence and spread resulting in extensive epidermal detachment and sloughing. The clinical team diagnosed as Stevens-Johnson's syndrome (SJS) secondary to Cotrimoxazole as he was on it over the past 8 days. Therefore, they agreed to discontinue Cotrimoxazole immediately.

What is the next most appropriate drug therapy for this patient?

(A) Aspirin
(B) Ibuprofen
(C) Diclofenac
(D) Paracetamol

Answer: D

41. A 58-year-old man is diagnosed with colorectal cancer and came to a clinic complaining numbness and tingling in his right hand after eight cycle of his treatment.

What treatment is the most likely cause for this side effect?

(A) Carboplatin
(B) Leucovorin
(C) Oxaliplatin
(D) Capecitabine

Answer: C

42. About seven days after the first course of cytotoxic chemotherapy, a 49-year-old male patient experienced high grade fever. He has a profound neutropenia which is anticipated to extend 7 days. A history of an immediate-type hypersensitivity reaction from penicillin is reported. Despite an optimal dose of IV Ciprofloxacillin and Vancomycin for his neutropenic fever management was instituted, the fever persisted. The physician requested the pharmacist to go through this case for a recommendation.

What should be done to achieve desired outcome for this patient?

(A) Ciprofloxacillin should be substituted by Gentamycin or Clindamycin
(B) Fluconazole should be added to Ciprofloxacillin and Vancomycin
(C) Ciprofloxacillin should be substituted by Ceftazidime or Cefepime
(D) Acyclovir should be added to Ciprofloxacillin and Vancomycin

Answer: B

(A) Needs additional drug therapy
(B) Unnecessary drug therapy
(C) Ineffective drug therapy
(D) Adverse drug reaction

Answer: A

40. A 37-year-old male patient with HIV/AIDS and on HAART was admitted to a hospital with generalized painful bullous lesion with accompanying high fever, headache, and respiratory symptoms that deteriorated rapidly. Lesions show rapid confluence and spread resulting in extensive epidermal detachment and sloughing. The clinical team diagnosed as Stevens-Johnson's syndrome (SJS) secondary to Cotrimoxazole as he was on it over the past 8 days. Therefore, they agreed to discontinue Cotrimoxazole immediately.

What is the next most appropriate drug therapy for this patient?

(A) Aspirin
(B) Ibuprofen
(C) Diclofenac
(D) Paracetamol

Answer: D

41. A 58-year-old man is diagnosed with colorectal cancer and came to a clinic complaining numbness and tingling in his right hand after eight cycle of his treatment.

What treatment is the most likely cause for this side effect?

(A) Carboplatin
(B) Leucovorin
(C) Oxaliplatin
(D) Capecitabine

Answer: C

42. About seven days after the first course of cytotoxic chemotherapy, a 49-year-old male patient experienced high grade fever. He has a profound neutropenia which is anticipated to extend 7 days. A history of an immediate-type hypersensitivity reaction from penicillin is reported. Despite an optimal dose of IV Ciprofloxacillin and Vancomycin for his neutropenic fever management was instituted, the fever persisted. The physician requested the pharmacist to go through this case for a recommendation.

What should be done to achieve desired outcome for this patient?

(A) Ciprofloxacillin should be substituted by Gentamycin or Clindamycin
(B) Fluconazole should be added to Ciprofloxacillin and Vancomycin
(C) Ciprofloxacillin should be substituted by Ceftazidime or Cefepime
(D) Acyclovir should be added to Ciprofloxacillin and Vancomycin

Answer: B

43. A 50 kilogram weighing woman is being treated for her ovarian cancer by doxorubicin 45 mg/m2 on day one, and Paclitaxel 200 mg/m2 on day one. Currently the patient developed anemia and her hemoglobin increased by 0.5-1 g/dL after Epoetinalfa of 7500 units three times weekly is given for one month.

What is the most appropriate next step in the management of this patient?

(A) Discontinue Epoetinalfa

(B) Taper the dose of Epoetinalfa

(C) Change Epoetinalfa to Darbepoetinalfa

(D) Increase the dose ofEpoetinalfa to 15000 units

Answer: D

44. A 41-year-old man with medical history of hypertension, type II diabetes, and cirrhosis comes to OPD with a complaint of erectile dysfunction. His current medication includes Enalapril, Metformin, Propranolol and Aspirin.

What drug is the most likely reason for this patient condition?

(A) Asprin

(B) Enalapril

(C) Metformin

(D) Propranolol

Answer: D

45. A 20-year-old woman comes with a diagnosis of preterm labor. The gynecologist decided to postpone delivery long enough to allow for the maximum effect of antenatal steroid administration.

What is the most preferable drug for this patient?

(A) Nifedipine

(B) Terbutaline

(C) Indometacin

(D) Hydralazine

Answer: A

46. A 47-year-old man diagnosed with benign prostatic hyperplasia was presented with voiding symptoms and lower flow rate.

What is the most effective treatment option for this condition?

(A) Surgery

(B) Terazosin

(C) Finasteride

(D) Diphenhydramine

Answer: B

43. A 50 kilogram weighing woman is being treated for her ovarian cancer by doxorubicin 45 mg/m2 on day one, and Paclitaxel 200 mg/m2 on day one. Currently the patient developed anemia and her hemoglobin increased by 0.5-1 g/dL after Epoetinalfa of 7500 units three times weekly is given for one month.

What is the most appropriate next step in the management of this patient?

(A) Discontinue Epoetinalfa

(B) Taper the dose of Epoetinalfa

(C) Change Epoetinalfa to Darbepoetinalfa

(D) Increase the dose ofEpoetinalfa to 15000 units

Answer: D

44. A 41-year-old man with medical history of hypertension, type II diabetes, and cirrhosis comes to OPD with a complaint of erectile dysfunction. His current medication includes Enalapril, Metformin, Propranolol and Aspirin.

What drug is the most likely reason for this patient condition?

(A) Asprin

(B) Enalapril

(C) Metformin

(D) Propranolol

Answer: D

45. A 20-year-old woman comes with a diagnosis of preterm labor. The gynecologist decided to postpone delivery long enough to allow for the maximum effect of antenatal steroid administration.

What is the most preferable drug for this patient?

(A) Nifedipine

(B) Terbutaline

(C) Indometacin

(D) Hydralazine

Answer: A

46. A 47-year-old man diagnosed with benign prostatic hyperplasia was presented with voiding symptoms and lower flow rate.

What is the most effective treatment option for this condition?

(A) Surgery

(B) Terazosin

(C) Finasteride

(D) Diphenhydramine

Answer: B

47. A 27-year-old male epileptic patient came to a pharmacy with an ordinary prescription of Phenobarbitone 100mg PO once daily for two months signed by a physician. The pharmacist on duty, after checking the date on the prescription was correct, provided the requested drugs with appropriate counseling for the patient and finally recorded the prescription.

What is the most likely error committed by the pharmacist?

(A) Legality
(B) Legibility
(C) Completeness
(D) Documentation

Answer: A

48. A mother of a five-year-old child, who complains of fever and poor appetite, went to a private pharmacy and made verbal request for Amoxicillin suspension. The pharmacist gave her the drug with an advice to shake it well and administer one teaspoon TID for ten days.

What was the most likely error of the dispenser in this case?

(A) Shaking the bottle was not needed
(B) He should have dispensed Augmentin instead
(C) He should have asked her a prescription paper
(D) Three times per day dose is not recommended for children

Answer: C

49. A 23-year-old man has started taking anti-depressant drugs prescribed by his physician. He has been taking the prescribed drugs as ordered. However, he came back to the hospital complaining constipation, dry mouth and difficulty in urination.

What drug is most likely responsible for the complaint of the patient?

(A) Imipramine
(B) Fluoxetine
(C) Sertraline
(D) Selegiline

Answer: A

50. A 34-year-old man was admitted to a hospital with a *Pseudomonas* urinary tract infection that is resistant to all antibiotics except for aminoglycosides.

What is the most appropriate strategy of using these drugs for this patient?

(A) Initiating high dose of less frequently
(B) Initiating high dose of more frequently
(C) Initiating low dose of more frequently
(D) Initiating low dose of less frequently

Answer: A

47. A 27-year-old male epileptic patient came to a pharmacy with an ordinary prescription of Phenobarbitone 100mg PO once daily for two months signed by a physician. The pharmacist on duty, after checking the date on the prescription was correct, provided the requested drugs with appropriate counseling for the patient and finally recorded the prescription.

What is the most likely error committed by the pharmacist?

(A) Legality

(B) Legibility

(C) Completeness

(D) Documentation

Answer: A

48. A mother of a five-year-old child, who complains of fever and poor appetite, went to a private pharmacy and made verbal request for Amoxicillin suspension. The pharmacist gave her the drug with an advice to shake it well and administer one teaspoon TID for ten days.

What was the most likely error of the dispenser in this case?

(A) Shaking the bottle was not needed

(B) He should have dispensed Augmentin instead

(C) He should have asked her a prescription paper

(D) Three times per day dose is not recommended for children

Answer: C

49. A 23-year-old man has started taking anti-depressant drugs prescribed by his physician. He has been taking the prescribed drugs as ordered. However, he came back to the hospital complaining constipation, dry mouth and difficulty in urination.

What drug is most likely responsible for the complaint of the patient?

(A) Imipramine

(B) Fluoxetine

(C) Sertraline

(D) Selegiline

Answer: A

50. A 34-year-old man was admitted to a hospital with a *Pseudomonas* urinary tract infection that is resistant to all antibiotics except for aminoglycosides.

What is the most appropriate strategy of using these drugs for this patient?

(A) Initiating high dose of less frequently

(B) Initiating high dose of more frequently

(C) Initiating low dose of more frequently

(D) Initiating low dose of less frequently

Answer: A

51. A 4-year-old child was brought to a hospital with a complaint of cough and fever. He was diagnosed with upper respiratory tract infection. The pediatrician prescribed two bottle of Azithromycin 200mg/5ml powder for suspension.

Which information should be given to the child's family?

(A) Use suspension until it is finished

(B) Use freshly boiled & cooled water(FBC)

(C) Add water(FBC) to each bottle each time before using the drug

(D) Add water (FBC) to the two bottles at the same time and keep safely

Answer: B

52. A prescription, containing Furosemide 20 mg PO BID and Spironolactone 100mg PO daily for one month, is presented to a hospital pharmacy. The available stock at hand for Furosemide is in 10mg strength and that of Spironolactone is 25 mg.

What is the total quantity of tablets to be dispensed for Furosemide and Spironolactone, respectively?

(A) 240 tablets for both drugs

(B) 120 tablets for both drugs

(C) 120 and 160 tablets

(D) 60 and 120 tablets

Answer: B

53. A 45-year-old man was diagnosed with type I diabetes mellitus. His fasting and post-meal blood glucose was 135mg/dl and 200 mg/dl respectively, HbA1C was 7.8% and BP was 130/82 mmHG. He was asymptomatic and investigations revealed no end organ damage. He was prescribed a treatment of: Lente Insulin 30IU a.m /20IU p.m for 120 days. (Hint: U-100 insulin contains 100 units/mL and 1vial=10ml).

How many vials should be dispensed for this patient?

(A) 4

(B) 6

(C) 12

(D) 3

Answer: B

54. A 60-year-old man was presented for the third time gouty attack in the past one year. He feels pain on his left knee and the third and fourth proximal interphalangeal joints of his left hand. He has a history of peptic ulcer. His pain started about 10 hours ago and rates his pain as 6/10.

Which OTC is most appropriate for treatment of this acute gouty attack?

(A) Indomethacin

51. A 4-year-old child was brought to a hospital with a complaint of cough and fever. He was diagnosed with upper respiratory tract infection. The pediatrician prescribed two bottle of Azithromycin 200mg/5ml powder for suspension.

Which information should be given to the child's family?

(A) Use suspension until it is finished
(B) Use freshly boiled & cooled water(FBC)
(C) Add water(FBC) to each bottle each time before using the drug
(D) Add water (FBC) to the two bottles at the same time and keep safely

Answer: B

52. A prescription, containing Furosemide 20 mg PO BID and Spironolactone 100mg PO daily for one month, is presented to a hospital pharmacy. The available stock at hand for Furosemide is in 10mg strength and that of Spironolactone is 25 mg.

What is the total quantity of tablets to be dispensed for Furosemide and Spironolactone, respectively?

(A) 240 tablets for both drugs
(B) 120 tablets for both drugs
(C) 120 and 160 tablets
(D) 60 and 120 tablets

Answer: B

53. A 45-year-old man was diagnosed with type I diabetes mellitus. His fasting and post-meal blood glucose was 135mg/dl and 200 mg/dl respectively, HbA1C was 7.8% and BP was 130/82 mmHG. He was asymptomatic and investigations revealed no end organ damage. He was prescribed a treatment of: Lente Insulin 30IU a.m /20IU p.m for 120 days. (Hint: U-100 insulin contains 100 units/mL and 1vial=10ml).

How many vials should be dispensed for this patient?

(A) 4
(B) 6
(C) 12
(D) 3

Answer: B

54. A 60-year-old man was presented for the third time gouty attack in the past one year. H feels pain on his left knee and the third and fourth proximal interphalangeal joints of his le hand. He has a history of peptic ulcer. His pain started about 10 hours ago and rates his pa as 6/10.

Which OTC is most appropriate for treatment of this acute gouty attack?

(A) Indomethacin

(B) Diclofenac
(C) Piroxicam
(D) Celecoxib
Answer: D

55. An extemporaneous prescription order calls to prepare a mix of 2 % (w/v) and give 1tsp QID PO ac. A pharmacy professional prepared it by taking 50ml of a 4%w/v stock solution and 50 ml of the appropriate diluents. While dispensing the pharmacist labeled as to take 5ml every 6 hours by mouth before a meal.

What is the most likely error committed by the pharmacist in this case?
(A) Volume of stock solution used
(B) Volume of diluents used
(C) Amount used during preparation
(D) Labeling during dispensing
Answer: D

56. A Pharmacist received a prescription to prepare Bismuth Subgallate Suppositories BP. The pharmacy professional prepared the medication with the right SOP procedure and labeled it accordingly.

What precaution is required during labeling this preparation?
(A) For external use only
(B) Warm before use
(C) For rectal use only
(D) Store in a cool place
Answer: C

57. A 40-year-old male pharmacist is interested to ascertain the quality of pharmaceutical products in store pharmacy by simple physical inspection.

What is the most appropriate indicator for good quality pharmaceuticals in this inspection?
(A) Ripped packaging
(B) Non-crumpled pills
(C) Unreadable labels
(D) Moisture inside injectable package
Answer: B

58. A 33-year-old pregnant woman visited a pharmacy with a prescription paper. She gave the prescription paper to a male pharmacist who wore a clean and white gown. He attached his identification tag on the gown in such a way that it was visible to the client. He dispensed the prescription correctly while he was talking his girlfriend via telephone.

What is the error of the above dispensing practice?

(B) Diclofenac
(C) Piroxicam
(D) Celecoxib
Answer: D

55. An extemporaneous prescription order calls to prepare a mix of 2 % (w/v) and give 1tsp QID PO ac. A pharmacy professional prepared it by taking 50ml of a 4%w/v stock solution and 50 ml of the appropriate diluents. While dispensing the pharmacist labeled as to take 5ml every 6 hours by mouth before a meal.

What is the most likely error committed by the pharmacist in this case?
(A) Volume of stock solution used
(B) Volume of diluents used
(C) Amount used during preparation
(D) Labeling during dispensing
Answer: D

56. A Pharmacist received a prescription to prepare Bismuth Subgallate Suppositories BP. The pharmacy professional prepared the medication with the right SOP procedure and labeled it accordingly.

What precaution is required during labeling this preparation?
(A) For external use only
(B) Warm before use
(C) For rectal use only
(D) Store in a cool place
Answer: C

57. A 40-year-old male pharmacist is interested to ascertain the quality of pharmaceutical products in store pharmacy by simple physical inspection.

What is the most appropriate indicator for good quality pharmaceuticals in this inspection?
(A) Ripped packaging
(B) Non-crumpled pills
(C) Unreadable labels
(D) Moisture inside injectable package
Answer: B

58. A 33-year-old pregnant woman visited a pharmacy with a prescription paper. She gave prescription paper to a male pharmacist who wore a clean and white gown. He attache identification tag on the gown in such a way that it was visible to the client. He dispense prescription correctly while he was talking his girlfriend via telephone.

What is the error of the above dispensing practice?

(A) Patients lack reception

(B) Prescription was illegal

(C) Legibility of the prescription

(D) Dispensary room was not well organized

Answer: A

59. A 31-year-old dispensary pharmacist has planned to arrange all the pharmaceutical products on a newly made shelf for ease of dispensing.

What method of drug arrangement should be avoided in this scenario?

(A) Dosage forms

(B) Pharmacotherapeutic category

(C) Alphabetical order by brand name

(D) Alphabetical order by generic name

Answer: C

60. A 30-year-old pregnant woman was taking drugs for motion sickness. According to animal study, the drug she was taking causes some abnormality on fetus and the mother. But no human study has been done yet on the drug.

What is the appropriate FDA pregnancy category of the above drug?

(A) A

(B) B

(C) C

(D) D

Answer: B

61. A 50-year-old obese woman, who was diagnosed with Type-II Diabetes mellitus15 years back and on regular NPH insulin, came to an outpatient pharmacy for an advice regarding the side effects of her anti-diabetic drugs. She complains blurring of vision, weakness, headache, anxiety, confusion, increased appetite and diaphoresis immediately after taking the drug.

What could be the most appropriate advice for the patient in this case?

(A) Taking only NPH Insulin

(B) Taking only regular Insulin

(C) Switching back to oral agents

(D) Taking sugar containing meal

Answer: D

62. A 56-year-old male asymptomatic patient came to OPD and vital sign showed a BP of 180/110 mmHg. He was not previously treated for hypertension and the physician put him on Nifedipine slow release 30 mg PO daily.

(A) Patients lack reception

(B) Prescription was illegal

(C) Legibility of the prescription

(D) Dispensary room was not well organized

Answer: A

59. A 31-year-old dispensary pharmacist has planned to arrange all the pharmaceutical products on a newly made shelf for ease of dispensing.

What method of drug arrangement should be avoided in this scenario?

(A) Dosage forms

(B) Pharmacotherapeutic category

(C) Alphabetical order by brand name

(D) Alphabetical order by generic name

Answer: C

60. A 30-year-old pregnant woman was taking drugs for motion sickness. According to animal study, the drug she was taking causes some abnormality on fetus and the mother. But no human study has been done yet on the drug.

What is the appropriate FDA pregnancy category of the above drug?

(A) A

(B) B

(C) C

(D) D

Answer: B

61. A 50-year-old obese woman, who was diagnosed with Type-II Diabetes mellitus15 years back and on regular NPH insulin, came to an outpatient pharmacy for an advice regarding the side effects of her anti-diabetic drugs. She complains blurring of vision, weakness, headache, anxiety, confusion, increased appetite and diaphoresis immediately after taking the drug.

What could be the most appropriate advice for the patient in this case?

(A) Taking only NPH Insulin

(B) Taking only regular Insulin

(C) Switching back to oral agents

(D) Taking sugar containing meal

Answer: D

62. A 56-year-old male asymptomatic patient came to OPD and vital sign showed a BP of 180/110 mmHg. He was not previously treated for hypertension and the physician put him on Nifedipine slow release 30 mg PO daily.

What is the main reason for of selecting slow release preparation for this patient?

(A) To increase efficacy

(B) To increase adherence

(C) To decrease side effect

(D) To decrease total daily dose

Answer: C

63. A 66-year-old alcohol addicted male patient faced a repeated severe headache for the last two weeks. A neighbor tells him that he had similar problem previously and got a relief after taking frequent Paracetamol tablet. The neighbor shares the anti-pain for the patient and after three days, the patient is admitted to a hospital and diagnosed with paracetamol-induced hepatitis.

What factor is mainly responsible for the hospitalization of this patient?

(A) Because the patient was sharing a medicine

(B) Because the patient was using ineffective drug

(C) Because the patient was using inappropriate medicine

(D) Because the patient is old, he is susceptible to hepatitis

Answer: A

64. A mother comes to a pharmacy to buy an OTC medication to treat dry cough of her 6 month infant. The pharmacist dispensed dextromethorphan hydrobromide for her infant. The mother came back to the pharmacy the next day and complained of worsened condition of her baby.

What is the main reason for the client's complaint?

(A) The infant must be put on antibiotics and dextromethorphan

(B) The infant must be on optimal dose of chlorpheniramine syrup

(C) The infant must be referred to a hospital from the beginning

(D) The infant must be put on codeine phosphate rather than dextromethorphan

Answer: C

65. In Good Dispensing Practice, following a counseling session, transactions related to the prescriptions must be recorded on the prescription registration format to monitor performances. In addition, each prescription should be signed by an authorized dispenser and filled prescription should be kept as a receipt.

What activity is proper with regard to documentation and prescription filling?

(A) Special prescriptions should be filed for five years

(B) Prescriptions should be disposed carefully by the pharmacy staff

(C) Prescriptions records should be accessible to authorized prescribers

(D) Prescriptions should be collected monthly and filled chronologically

Answer: A

What is the main reason for of selecting slow release preparation for this patient?

(A) To increase efficacy

(B) To increase adherence

(C) To decrease side effect

(D) To decrease total daily dose

Answer: C

63. A 66-year-old alcohol addicted male patient faced a repeated severe headache for the last two weeks. A neighbor tells him that he had similar problem previously and got a relief after taking frequent Paracetamol tablet. The neighbor shares the anti-pain for the patient and after three days, the patient is admitted to a hospital and diagnosed with paracetamol-induced hepatitis.

What factor is mainly responsible for the hospitalization of this patient?

(A) Because the patient was sharing a medicine

(B) Because the patient was using ineffective drug

(C) Because the patient was using inappropriate medicine

(D) Because the patient is old, he is susceptible to hepatitis

Answer: A

64. A mother comes to a pharmacy to buy an OTC medication to treat dry cough of her 6 month infant. The pharmacist dispensed dextromethorphan hydrobromide for her infant. The mother came back to the pharmacy the next day and complained of worsened condition of her baby.

What is the main reason for the client's complaint?

(A) The infant must be put on antibiotics and dextromethorphan

(B) The infant must be on optimal dose of chlorpheniramine syrup

(C) The infant must be referred to a hospital from the beginning

(D) The infant must be put on codeine phosphate rather than dextromethorphan

Answer: C

65. In Good Dispensing Practice, following a counseling session, transactions related to the prescriptions must be recorded on the prescription registration format to monitor performances. In addition, each prescription should be signed by an authorized dispenser and filled prescription should be kept as a receipt.

What activity is proper with regard to documentation and prescription filling?

(A) Special prescriptions should be filed for five years

(B) Prescriptions should be disposed carefully by the pharmacy staff

(C) Prescriptions records should be accessible to authorized prescribers

(D) Prescriptions should be collected monthly and filled chronologically

Answer: A

66. A junior pharmacist at a district hospital was asked by a nurse for advice on the type of medical supplies which can be sterilized and reused.

Which type of medical supplies can most likely be sterilized for reuse?

(A) Disposable syringe
(B) Degradable sutures
(C) Glass syringes
(D) Expired syringes

Answer: C

67. A medical director of a certain hospital requested twenty blood pressure measurement devices from a pharmacy store. The pharmacist prepared all the blood pressure measurement devices and packed.

What is the most appropriate next step in dispensing these devices?

(A) Supply the devices
(B) Evaluate the request
(C) Request to bring a bill
(D) Check the repackaging

Answer: A

68. A pharmacist working in a store is requested for nasogastric tube (NG) via Report and Requisition Form (RRF).

What should the store pharmacist consider before issuing the requested item?

(A) Size
(B) Length
(C) Cost
(D) Thickness

Answer: A

69. A 48-year-old female patient tells a drug information service pharmacist that she saw a story on the internet that state as patients should stop taking their warfarin and switch to another agent. She tells the pharmacist that she is not planning to take it anymore and wants the physician to find her an option. She requested the pharmacist to recommend her any other alternatives.

What is the most likely approach that the pharmacist will follow to help this client?

(A) He should provide appropriate responses irrespective of the reliability of internet
(B) He should advise patient to refrain from seeing internet as an extension of care
(C) He should review and evaluate the information before recommendation
(D) He should refer the patient to her physician for decision

66. A junior pharmacist at a district hospital was asked by a nurse for advice on the type of medical supplies which can be sterilized and reused.

Which type of medical supplies can most likely be sterilized for reuse?

(A) Disposable syringe
(B) Degradable sutures
(C) Glass syringes
(D) Expired syringes

Answer: C

67. A medical director of a certain hospital requested twenty blood pressure measurement devices from a pharmacy store. The pharmacist prepared all the blood pressure measurement devices and packed.

What is the most appropriate next step in dispensing these devices?

(A) Supply the devices
(B) Evaluate the request
(C) Request to bring a bill
(D) Check the repackaging

Answer: A

68. A pharmacist working in a store is requested for nasogastric tube (NG) via Report and Requisition Form (RRF).

What should the store pharmacist consider before issuing the requested item?

(A) Size
(B) Length
(C) Cost
(D) Thickness

Answer: A

69. A 48-year-old female patient tells a drug information service pharmacist that she saw a story on the internet that state as patients should stop taking their warfarin and switch to another agent. She tells the pharmacist that she is not planning to take it anymore and wants the physician to find her an option. She requested the pharmacist to recommend her any other alternatives.

What is the most likely approach that the pharmacist will follow to help this client?

(A) He should provide appropriate responses irrespective of the reliability of internet
(B) He should advise patient to refrain from seeing internet as an extension of care
(C) He should review and evaluate the information before recommendation
(D) He should refer the patient to her physician for decision

Answer: C

70. A clinical pharmacist working at an emergency department observed a significant number of children with diabetic ketoacidosis (DKA). On the pharmaceutical assessment report, the pharmacist realized that most patients were injecting their insulin on the same site as it is less painful. He wants to prepare drug information material for these patients.

What would be the prioritized topic of interest for those patients on insulin use?

(A) Dosing and preparations

(B) Administration technique

(C) Related adverse events

(D) Stability at room temperature

Answer: B

71. Drug information query dealing about the dose of Vancomycin for the treatment of a patient admitted with bacterial meningitis is submitted to a drug information center. A pharmacist assigned to the center wants to obtain the relevant information to formulate effective response.

What is the most relevant background information required to solve the above problem?

(A) Sex of the patient

(B) Creatinine clearance

(C) Route of administration

(D) Address of the patient

Answer: B

72. A randomized clinical trial was conducted to assess the effect of aspirin in stroke patients for about two years. The study showed a significant mortality difference at six months (5% in aspirin versus 10% in placebo). At two years, risk of fatal bleeding due to aspirin was 12% compared to 0.3% in placebo. The mortality rate at two years was 15% in aspirin and 15% in placebo.

What would be the appropriately synthesized recommendation from this study?

(A) Long term use of aspirin in stroke patient is very safe

(B) Long term use of aspirin in stroke patient increases mortality

(C) Long term use of aspirin in stroke patient reduces mortality

(D) Long term use of aspirin in stroke patient is not beneficial

Answer: D

73. A pharmacist planned to conduct searching of literatures regarding the effectiveness of coffee in prevention of liver cancer on secondary databases.

What would be the appropriate search strategy to obtain relevant literatures on the topic?

(A) Coffee AND effectiveness

Answer: C

70. A clinical pharmacist working at an emergency department observed a significant number of children with diabetic ketoacidosis (DKA). On the pharmaceutical assessment report, the pharmacist realized that most patients were injecting their insulin on the same site as it is less painful. He wants to prepare drug information material for these patients.

    What would be the prioritized topic of interest for those patients on insulin use?

    (A) Dosing and preparations
    (B) Administration technique
    (C) Related adverse events
    (D) Stability at room temperature

Answer: B

71. Drug information query dealing about the dose of Vancomycin for the treatment of a patient admitted with bacterial meningitis is submitted to a drug information center. A pharmacist assigned to the center wants to obtain the relevant information to formulate effective response.

    What is the most relevant background information required to solve the above problem?

    (A) Sex of the patient
    (B) Creatinine clearance
    (C) Route of administration
    (D) Address of the patient

    Answer: B

72. A randomized clinical trial was conducted to assess the effect of aspirin in stroke patients for about two years. The study showed a significant mortality difference at six months (5% in aspirin versus 10% in placebo). At two years, risk of fatal bleeding due to aspirin was 12% compared to 0.3% in placebo. The mortality rate at two years was 15% in aspirin and 15% in placebo.

    What would be the appropriately synthesized recommendation from this study?

    (A) Long term use of aspirin in stroke patient is very safe
    (B) Long term use of aspirin in stroke patient increases mortality
    (C) Long term use of aspirin in stroke patient reduces mortality
    (D) Long term use of aspirin in stroke patient is not beneficial

    Answer: D

73. A pharmacist planned to conduct searching of literatures regarding the effectiveness of coffee in prevention of liver cancer on secondary databases.

    What would be the appropriate search strategy to obtain relevant literatures on the topic?

    (A) Coffee AND effectiveness

(B) Coffee OR effectiveness

(C) Coffee OR liver cancer

(D) Coffee AND liver cancer

Answer: D

74. A pharmacist planned to evaluate randomized clinical trial published on the efficacy of Warfarin and Dabigatran among individuals who have undergone a knee surgery. The pharmacist is interested to identify information on the comparative finding of this research with other similar studies.

Which article section will give such kinds of information?

(A) Abstract

(B) Conclusion

(C) Discussion

(D) Results

Answer: C

75. A group of scientists working on drug discovery and development from plant source performed size reduction of the plant extract before extraction. The next step in the process is to isolate the active constituents from the dried and powdered plant. They require obtaining a more concentrated extract by soaking the extract and flushing with a fresh solvent.

What is the best extraction procedure they should employ for this purpose?

(A) Distillation

(B) Maceration

(C) Percolation

(D) Counter-current extraction

Answer: C

76. A Pharmaceutical technologist who is working in a research and development unit is planning to prepare a dosage form, with a fast onset of action, for emergency treatment.

Which tablet formulation is more suitable for this situation?

(A) Chewable

(B) Enteric coated

(C) Effervescent

(D) Super disintegrating

Answer: C

(B) Coffee OR effectiveness
(C) Coffee OR liver cancer
(D) Coffee AND liver cancer
Answer: D

74. A pharmacist planned to evaluate randomized clinical trial published on the efficacy of Warfarin and Dabigatran among individuals who have undergone a knee surgery. The pharmacist is interested to identify information on the comparative finding of this research with other similar studies.

Which article section will give such kinds of information?
(A) Abstract
(B) Conclusion
(C) Discussion
(D) Results
Answer: C

75. A group of scientists working on drug discovery and development from plant source performed size reduction of the plant extract before extraction. The next step in the process is to isolate the active constituents from the dried and powdered plant. They require obtaining a more concentrated extract by soaking the extract and flushing with a fresh solvent.

What is the best extraction procedure they should employ for this purpose?
(A) Distillation
(B) Maceration
(C) Percolation
(D) Counter-current extraction
Answer: C

76. A Pharmaceutical technologist who is working in a research and development unit is planning to prepare a dosage form, with a fast onset of action, for emergency treatment.

Which tablet formulation is more suitable for this situation?
(A) Chewable
(B) Enteric coated
(C) Effervescent
(D) Super disintegrating
Answer: C